Workshop: Case Study 1 - Somewhereville

Please refer to the attached drawing when working on this problem.

Situation:

The town of Somewhereville is located just below an exit from Interstate 10. Somewhereville is a quiet residential town which contains mainly middle-class income housing for its people. There is a wide variety of age groups that live in the neighborhood, ranging from small children to elderly citizens. On the west side of town is a small community college which attracts various people from the town and other neighboring areas. There is also a fire station located on the east side of town, near Davis Street.

Interstate 10 is a major arterial that carries the majority of traffic into Somewhereville and other nearby towns. As these vehicle come off the exit, Davis Street experiences some operational problems. The signalized intersection of Davis and Main currently runs near capacity conditions and delays are noticeable during the peak hours. Also, the intersection of Schooly St. and Main St. is very congested during much of the day. Many people who are affiliated with the college use the neighborhood streets, especially Second Street, to access it and avoid the Davis/Main intersection.

Some information that might be useful has been listed below:

- 45 mph speed limit on both Davis Street ad Main Street (both minor arterials)
- All residential (local) streets have 25 mph posted speed limits
- The parking lot north of the small college is for school use only
- The parking lot adjacent to the neighborhood is for residents and students
- Queues often build up on the Southbound and Westbound approaches of the Davis/Main intersection
- The fire house contains two fire engines that service Somewhereville and some other nearby communities.

The residents of Somewhereville have expressed dislike to the excess traffic on their streets and want something done. As a borough council member with some knowledge of traffic calming, answer the following questions:

1. What steps might you take to address the residents concerns?_____
_____
_____
_____
_____

2. On the drawing provided, code or sketch in some traffic calming devices at specific locations that may help to solve the traffic problems facing the neighborhood and surrounding area. The code for some calming devices is as follows:

Traffic Diverter	TD
Speed Hump	SH
Traffic Circle	TC
Median	MED
Bulbouts (Curb Extensions)	CE
Other Devices:	OD Specify in words (use first two letters of device)

3. Note any other items that should be considered in addressing this problem.____
_____
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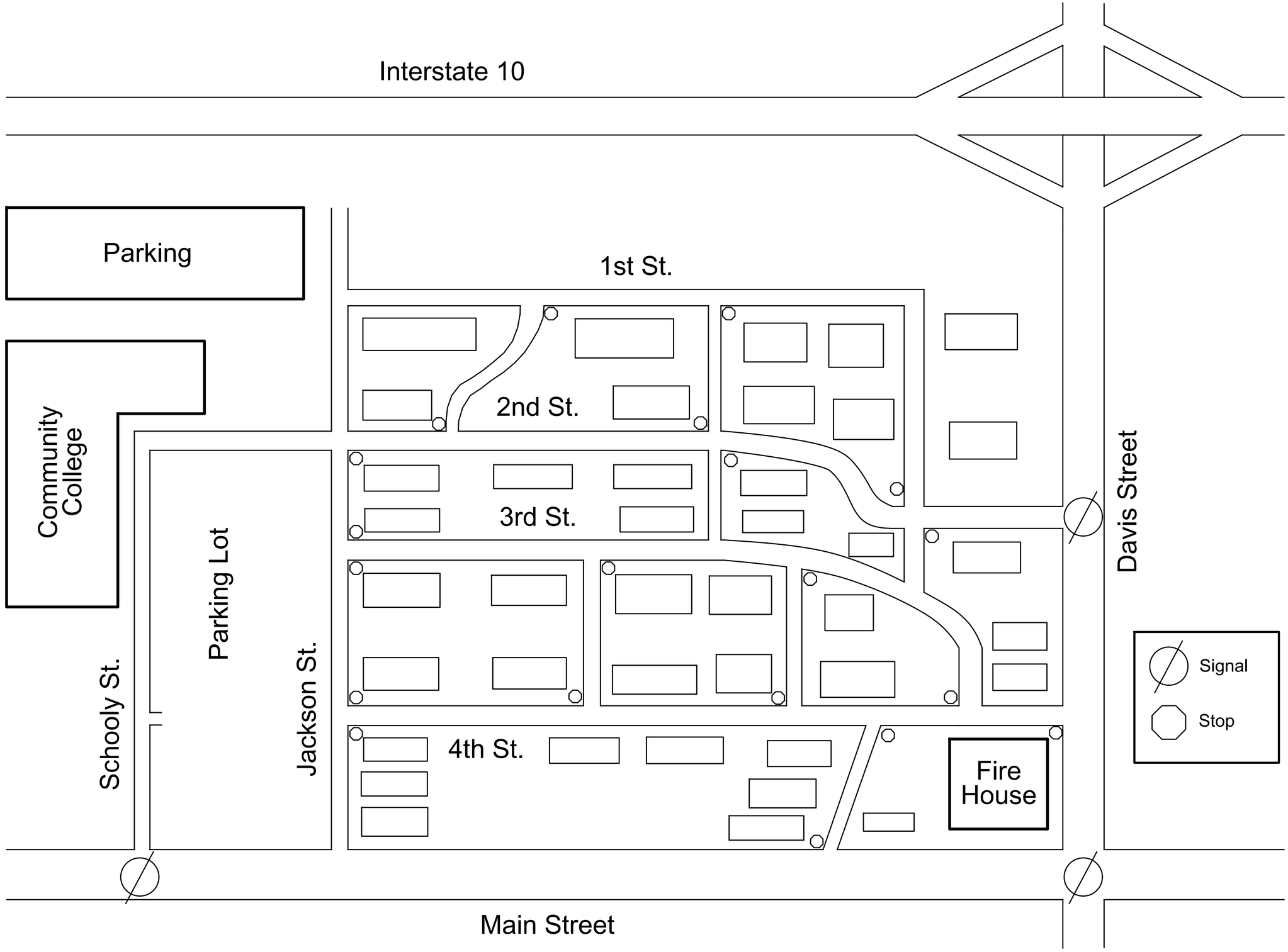
Interstate 10
Parking
1st St.
Community College
2nd St.
3rd St.
Parking Lot
Schooly St.
Jackson St.
4th St.
Fire House
Davis Street
Signal
Stop
Main Street

Workshop: Case Study 2 – School

Please refer to the attached drawing when working on this problem.

Situation:

The town shown in the drawing has a newly developed neighborhood that surrounds an existing elementary school. The streets that lie on the outskirts of the neighborhood (Front St, Lewis Avenue, and Thomas St.) are all major collector roads and experience high traffic volumes during the peak periods from nearby business districts. The new neighborhood has two parks where children can play and enjoy the outdoors. There are also a few doctor offices located within the neighborhood.

There are several concerns being expressed in the study area. First, school officials are concerned that too much traffic is utilizing the streets near the school. Two children have been injured by negligent drivers. Many people are using the neighborhood as a way to avoid the long delays found at all the signalized intersections during the peak hours. Others are worried that the traffic in the neighborhood makes the parks unsafe for the children. Residents want their streets to be more accommodating to walking and bicycling.

Some information that might be useful has been listed below:

- 35 mph speed limit on Front St., Thomas St., and Lewis Avenue (collector streets)
- All residential (local) streets have 25 mph posted speed limits
- The elementary school has grades 1 thru 6 with a total of 150 students
- Buses and motor vehicles are both allowed to drop off and pick up students from school
- The parks are not fenced in but merely separated by a curb from the adjacent roads
- The blocks containing HOMES have housing on all four sides

The residents and school officials are mainly concerned with excess speeds being a major threat to the school children's safety. Residents have also expressed a need for additional parking in the neighborhood. Answer the following questions:

1. What steps might you take to address the residents concerns?_____
_____
_____
_____
_____

2. On the drawing provided, code or sketch in some traffic calming devices at specific locations that may help to solve the traffic problems facing the neighborhood and surrounding area. The code for some calming devices is as follows:

Traffic Diverter	TD
Speed Hump	SH
Traffic Circle	TC
Median	MED
Bulbouts (Curb Extensions)	CE
Other Devices:	OD Specify in words (use first two letters of device)

3. Note any other items that should be considered in addressing this problem.____
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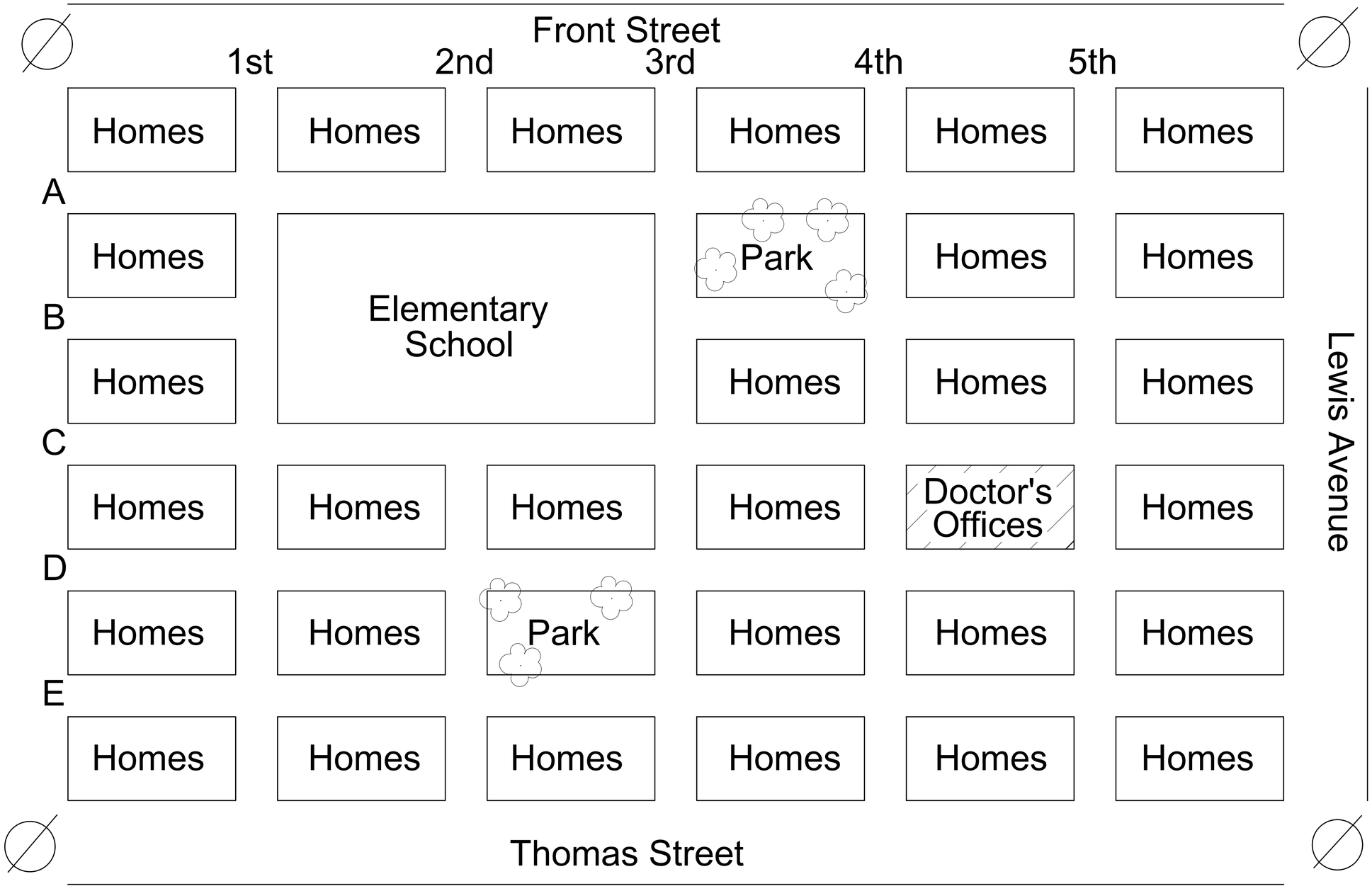

= Traffic Signal

Workshop: Case Study 3 – Cut-through Traffic

Please refer to the attached drawing when working on this problem.

Situation:

The neighborhood shown is bordered by an arterial (Johnson Street) on the west side and a major collector (Mitchell Street) on the south side. The signalized intersection is operating at a very poor conditions due to over capacity during the peak periods. Township A is worried that the neighborhood will suffer from the cut-thru traffic it is receiving because of this intersection and that the quality of life in the neighborhood will deteriorate. Township B is not affected by the cut-thru traffic. It is more concerned about its businesses and signals that are timed off on the main intersection.

Township A decides to place traffic diverters in the residential neighborhood to stop cut-thru traffic. Township B is angered because there is more strain placed on the intersection that is already operating over capacity. They claim that it is running their signal timing plans and that greater delays are occurring on the arterial.

Some information that might be useful has been listed below:

- 35 mph speed limit on both Johnson Street and Mitchell Street
- All residential (local) streets have 25 mph posted speed limits
- The neighborhood is mostly residential and there are many elderly that live there
- The neighborhood is mainly contained in Township A but also spills over into Township B

The townships are both concerned with the problems they face with and without traffic diverters in the neighborhood. Look over the situation and decide what should be done to help the people affected. This may include using the same traffic calming scheme or suggesting entirely new options.

1. What steps might you take to address the residents concerns?_____
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2. On the drawing provided, code or sketch in some traffic calming devices at specific locations that may help to solve the traffic problems facing the neighborhood and surrounding area. The code for some calming devices is as follows:

Traffic Diverter	TD
Speed Hump	SH
Traffic Circle	TC
Median	MED
Bulbouts (Curb Extensions)	CE
Other Devices:	OD Specify in words (use first two letters of device)

3. Note any other items that should be considered in addressing this problem.____
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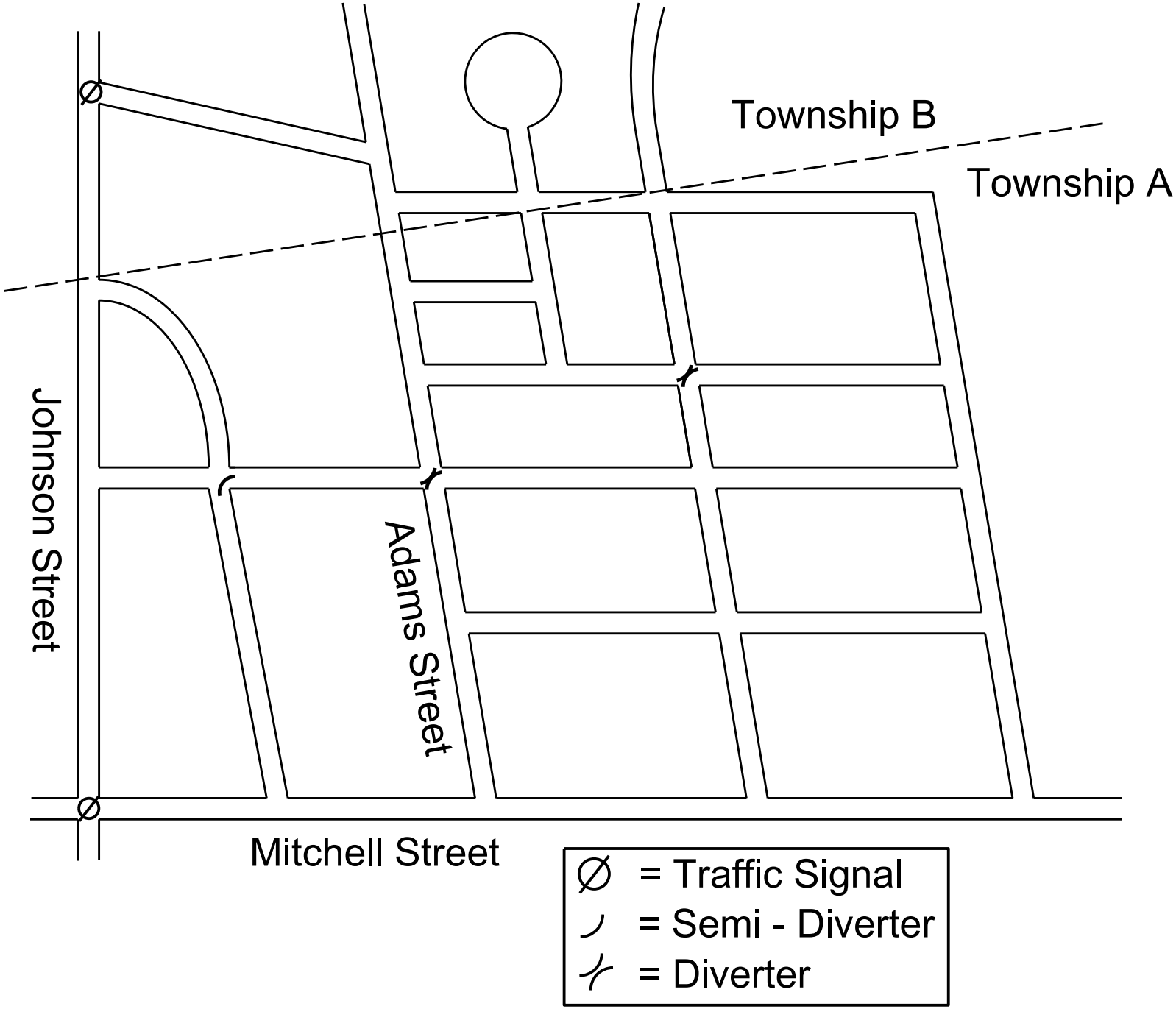
Township B
Township A
Johnson Street
Adams Street
Mitchell Street
= Traffic Signal
= Semi - Diverter
= Diverter